

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Alvin Janski
Art Unit	
Examiner Name	
Attorney Docket Number	KEDI 8828 W1

**U.S. PATENTS**

Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	6416479	B1	2002-07-09	Seidman	

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1	K. SYLVESTER, R. PATEY, J. HALL, G. FAFFERTY, M. DICK, S.L. THEIN, A. GREENOUGH, "Measurement of exhales carbon monoxide in children with sickle cell disease", Presentation abstract published in European Respiratory Journal 2002, Supplement 38, pg. 139, London, United Kingdom, Presented at ERS Annual Congress, Stockholm, Sept. 15, 2002.	<input type="checkbox"/>
2	Copy of Written Opinion of the International Searching Authority corresponding to International Application No. PCT/US05/03398.	<input type="checkbox"/>
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☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ None

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	<i>Mark E. Books</i>	Date (YYYY-MM-DD)	2006-07-27
Name/Print	Mark E. Books	Registration Number	40918

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10/588221  
IAP11 Rec'd PCT/PTD 27 JUL 2006

## Measurement of exhaled carbon monoxide in children with sickle cell disease

K. Sylvester, R. Patey, J. Hall, G. Rafferty, M. Dick, S. L. Thein, A. Greenough (London, United Kingdom)

**Background:** Carboxyhaemoglobin (COHb) is elevated in conditions of haem catabolism. End tidal exhaled carbon monoxide (ETCO) is related to COHb and can be measured nasally in all age groups. We hypothesised that in children with sickle cell disease (SCD) ETCO would be elevated and reduced by blood transfusion. **Methods:** ETCO was measured in non smoking subjects: 10 SCD children in steady state (mean age 10.5yrs, range 3.5 to 13.4yrs), 10 healthy ethnic-matched controls (mean age 10.3yrs, range 3.4 to 15.6yrs) and 11 SCD children (mean age 10.7yrs, range 5.2 to 17.6yrs) undergoing a regular blood transfusion to reduce SCD complications. ETCO, corrected for background CO (ETCOc), was measured by the CO-Stat<sup>(R)</sup> End Tidal Breath Analyzer (Natus Medical Inc., San Carlos, CA). In the transfusion group, ETCOc was measured before, midway and at the end of the transfusion. **Results:** ETCOc levels were higher ( $p < 0.0001$ ) in the SCD children in steady state (mean 5.6, 95% CI 4.3 to 6.9ppm) than the controls (mean 1.5, 95% CI 1.1 to 1.9ppm). In the transfusion group, ETCOc was lower during (mean 5.8, 95% CI 4.5 to 7.1ppm,  $p = 0.048$ ) and after (mean 5.3, 95% CI 3.8 to 6.7ppm,  $p = 0.01$ ) the transfusion compared to before transfusion (mean 6.3ppm, CI 4.7 to 7.8). **Conclusion:** These preliminary results suggest ETCO measurement could be a useful method of monitoring SCD children at risk of haemolytic crises and their response to treatment.

*Eur Respir J* 2002; 20: Suppl. 38, 139s

This abstract was presented at the ERS Annual Congress Stockholm 2002 on Sunday 15.09.2002 in session 110 : "Paediatric respiratory physiology - clinical aspects".